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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/678,800	10/03/2003	Todd P. Guay	oracle01.026	3882

7590  
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02/22/2007

EXAMINER
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AHLUWALIA, NAVNEET K

ART UNIT	PAPER NUMBER
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2166

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/22/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/678,800

Applicant(s)

GUAY ET AL.

Examiner

Navneet K. Ahluwalia

Art Unit

2166

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 and 25-32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 25-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. This communication is in response to the Amendment filed December 6, 2006.

#### ***Response to Arguments***

2. Claims 1 – 8 and 25 – 32 are pending in this Office Action. After a further search and a thorough examination of the present application, claims 1 – 8 and 25 – 32 remain rejected. The rejection under 35 U.S.C. §112 to claims 1 – 8 and 25 – 32 are withdrawn in view of the amendment to claims 1 and 25. Applicant's arguments with respect to claim 1 – 8 and 25 – 32 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 1 – 8 and 25 – 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langevin et al. ('Langevin' herein after) (US 2004/0120250 A1) further in view of Bakalash et al (Bakalash' herein after) (US 2002/0029207 A1).

With respect to claim 1,

Langevin discloses a method of aggregating a plurality of entries in a table in a database management system into an aggregated entry in the table or another table in the database management system, the method comprising the steps of: making the aggregated entry (Figure 10a elements 166, 168, 170 and 174, Langevin), the aggregated entry representing the plurality of entries and including a field whose value is a representation of a set that is capable of having a plurality of members (Figure 14a, 14b, Langevin); and deriving members of the set from values contained in entries belonging to the plurality thereof (Figure 6 element 93 and paragraph 0054 lines 25 – 34, Langevin).

Langevin however does not explicitly disclose the aggregated entry in the table or another table in the database management system as claimed.

Bakalash teaches the aggregated entry in the table or another table in Figures 13 and 15. Also disclosed in paragraphs 0073 and 0093 – 0095.

It would have been obvious to one of ordinary skill in the art of data processing at the time of the present invention to combine the teachings of cited references because

they are in the same field of invention of aggregating records for minimization of storage space and better efficiency. Furthermore, the aggregation engine supports high performance aggregation (data roll-up) to maximize query performance of large volumes of data and reduce the time of partial aggregations, which would lead to degrading query response (paragraphs 0092 – 0093, Bakalash). Bakalash also teaches the representation of a set of plurality members in paragraphs 0024 – 0026 and Figures 9 A, 9 B, 9 C1 & C2 and 10A.

Claims 2 – 8 are rejected under the same rationale given for claim 1. The citations of the elements claimed and taught are listed below.

With respect to claim 2,

Langevin as modified discloses the method set forth in claim 1 further comprising the step of: deleting the plurality of entries represented by the aggregated entry (paragraph 0054 lines 21 – 25, Langevin).

With respect to claim 3,

Langevin as modified discloses the method set forth in claim 1 wherein: the representation of the set has a size which varies with the number of members in the set (Figure 14a, 14b, Langevin).

With respect to claim 4,

Langevin as modified discloses the method set forth in claim 3 wherein: The representation of the set represents the set as a character string wherein each member is represented by a sequence of characters and the sequences of characters are separated by a separator character (Figure 14a, 14b, Langevin).

With respect to claim 5,

Langevin as modified discloses the method set forth in claim 1 wherein: the representation of the set has a size which is constant regardless of the number of members in the set (Figure 14a, 14b, Langevin).

With respect to claim 6,

Langevin discloses the method set forth in claim 5 wherein: the representation of the set represents the set as a string of elements, there being an element corresponding to each potential member of the set, the presence of a particular member in the set being indicated by a first value of the corresponding element and the absence of the particular member being indicated by a second value of the corresponding element (Figure 14a, 14b and paragraph 0071, Langevin).

With respect to claim 7,

Langevin as modified discloses the method set forth in claim 1 wherein: in the step of deriving members of the set, the values from which the members of the set are derived are time values (Figure 14a element 311).

With respect to claim 8,

Langevin as modified discloses the method set forth in claim 1 wherein: in the step of deriving members of the set, the values from which the members of the set are derived are location values (Figure 14b element 314, Langevin).

With respect to claim 25,

Langevin discloses a data storage device, characterized in that: the data storage device contains code which when executed by a processor performs a method of aggregating a plurality of entries in a table in a database management system into an aggregated entry in the table or another table in the database management system, the method comprising the steps of: making the aggregated entry (Figure 10a elements 166, 168, 170 and 174, Langevin), the aggregated entry representing the plurality of entries and including a field whose value is a representation of a set that is capable of having a plurality of members (Figure 14a, 14b, Langevin); and deriving members of the set from values contained in entries belonging to the plurality thereof (Figure 6 element 93 and paragraph 0054 lines 25 – 34, Langevin).

Langevin however does not explicitly disclose the aggregated entry in the table or another table in the database management system as claimed.

Bakalash teaches the aggregated entry in the table or another table in Figures 13 and 15. Also disclosed in paragraphs 0073 and 0093 – 0095.

It would have been obvious to one of ordinary skill in the art of data processing at the time of the present invention to combine the teachings of cited references because they are in the same field of invention of aggregating records for minimization of storage space and better efficiency. Furthermore, the aggregation engine supports high performance aggregation (data roll-up) to maximize query performance of large volumes of data and reduce the time of partial aggregations, which would lead to degrading query response (paragraphs 0092 – 0093, Bakalash). Bakalash also teaches the representation of a set of plurality members in paragraphs 0024 – 0026 and Figures 9 A, 9 B, 9 C1 & C2 and 10A

Claims 26 – 32 are rejected under the same rationale given for claim 1. The citations of the elements claimed and taught are listed below.

With respect to claim 26,

Langevin as modified discloses the data storage device set forth in claim 25 further characterized in that: the method further comprises the step of deleting the plurality of entries represented by the aggregated entry (paragraph 0054 lines 21 – 25, Langevin).

With respect to claim 27,

Langevin as modified discloses the data storage device set forth in claim 25 further characterized in that: the representation of the set has a size which varies with

the number of members in the set (Figure 14a, 14b, Langevin).

With respect to claim 28,

Langevin as modified discloses the data storage device set forth in claim 27 further characterized in that: The representation of the set represents the set as a character string wherein each member is represented by a sequence of characters and the sequences of characters are separated by a separator character (Figure 14a, 14b, Langevin).

With respect to claim 29,

Langevin as modified discloses the data storage device set forth in claim 25 further characterized in that: the representation of the set has a size which is constant regardless of the number of members in the set (Figure 14a, 14b, Langevin).

With respect to claim 30,

Langevin as modified discloses the data storage device set forth in claim 29 further characterized in that: the representation of the set represents the set as a string of elements, there being an element corresponding to each potential member of the set, the presence of a particular member in the set being indicated by a first value of the corresponding element and the absence of the particular member being indicated by a second value of the corresponding element (Figure 14a, 14b and paragraph 0071, Langevin).

With respect to claim 31,

Langevin as modified discloses the data storage device set forth in claim 25 further characterized in that: in the step of deriving members of the set, the values from which the members of the set are derived are time values (Figure 14a element 311, Langevin).

With respect to claim 32,

Langevin as modified discloses the data storage device set forth in claim 25 further characterized in that: in the step of deriving members of the set, the values from which the members of the set are derived are location values (Figure 14b element 314, Langevin).

***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Navneet K. Ahluwalia whose telephone number is 571-272-5636.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alam T. Hosain can be reached on 571-272-3978. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Navneet K. Ahluwalia  
Examiner  
Art Unit 2166

Tm 2/19/07

Dated: 02/05/2007

  
**HOSAIN ALAM**  
SUPERVISORY PATENT EXAMINER